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U.S. DEPARTMENT OF COMMERCE, PATENT AND TRADEMARK OFFICE

ATTORNEY'S DOCKET NUMBER

33146RD004

U.S. APPLICATION NO. (if known, see 37 CFR 1.5)

09/646415

TRANSMITTAL LETTER TO THE UNITED STATES
DESIGNATED/ELECTED OFFICE (DO/EO/US)
CONCERNING A FILING UNDER 35 U.S.C. 371

INTERNATIONAL APPLICATION NO.

PCT/US99/05733

INTERNATIONAL FILING DATE

17 March 1999

PRIORITY DATE CLAIMED

18 March 1998

TITLE OF INVENTION

"PROCESS FOR REDUCING PROTEIN ALLERGENS IN LATEX PRODUCTS"

APPLICANT(S) FOR DO/EO/US

George W. WEINHERT

Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:

1. ☒ This is a FIRST submission of items concerning a filing under 35 U.S.C. 371.
2. ☐ This is a SECOND or SUBSEQUENT submission of items concerning a filing under 35 U.S.C. 371.
3. ☒ This express request to begin national examination procedures (35 U.S.C. 371(f) at any time rather than delay examination until the expiration of the applicable time limit set in 35 U.S.C. 371(b) and PCT Articles 22 and 39(I).
4. ☒ A proper Demand for International Preliminary Examination was made by the 19th month from the earliest claimed priority date.
5. ☒ A copy of the International Application as filed (35 U.S.C. 371(c)(2))
 - a. ☒ is transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ has been transmitted by the International Bureau.
 - c. ☒ is not required, as the application was filed in the United States Receiving Office (RO/US).
6. ☐ A translation of the International Application into English (35 U.S.C. 371(c)(2)).
7. ☒ Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3)).
 - a. ☐ are transmitted herewith (required only if not transmitted by the International Bureau).
 - b. ☐ have been transmitted by the International Bureau.
 - c. ☐ have not been made; however, the time limit for making such amendments has NOT expired.
 - d. ☒ have not been made and will not be made.
8. ☐ A translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371(c)(3)).
9. ☐ An oath or declaration of the inventor(s) (35 U.S.C. 371(c)(4)).
10. ☐ A translation of the annexes to the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).

Items 11. to 16. below concern other document(s) or information included:

11. ☒ An Information Disclosure Statement under 37 CFR 1.97 and 1.98.
12. ☐ An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.
13. ☐ A FIRST preliminary amendment.
☐ A SECOND or SUBSEQUENT preliminary amendment.
14. ☐ A substitute specification.
15. ☐ A change of power of attorney and/or address letter.
16. ☒ Other items or information:
 - a. First page of WO 99/47087 publication
 - b. PCT/ISA/210

(Page 2)

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see 37 CFR 1.5)

09/646415

17. ☒ The following fees are submitted:

CALCULATIONS

PTO USE ONLY

Basic National Fee (37 CFR 1.492(a)(1)-(5)):

Search Report has been prepared by the EPO or JPO \$840.00

International preliminary examination fee paid to USPTO

(37 CFR 1.482) \$670.00

No international preliminary examination fee paid to USPTO (37 CFR 1.482) but international search fee paid to USPTO (37 CFR 1.445(a)(2)) \$690.00

Neither international preliminary examination fee (37 CFR 1.482) nor international search fee (37 CFR 1.445(a)(2)) paid to USPTO \$ 970.00

International preliminary examination fee paid to USPTO (37 CFR 1.482) and all claims satisfied provisions of PCT Article 33(2)-(4) \$96.00

ENTER APPROPRIATE BASIC FEE AMOUNT =

\$96.00

Surcharge of \$130.00 for furnishing the oath or declaration later than ☐ 20 ☐ 30 months from the earliest claimed priority date (37 CFR 1.495(e)).

\$

Claims	Number Filed	Number Extra	Rate		
Total Claims	20-20 =	0	x \$18.00	---	
Independent Claims	5 -3 =	2	x \$78.00	\$156.00	
Multiple dependent claim(s) (if applicable)			+ \$260.00	0.00	
TOTAL OF ABOVE CALCULATIONS =				\$ 252.00	
Reduction by 1/2 for filing by small entity, if applicable. Verified Small Entity statement must also be filed. (Note 37 CFR 1.9, 1.27, 1.28).				\$0.00	
SUBTOTAL =				\$ 252.00	
Processing fee of \$130.00 for furnishing the English translation later than <input type="checkbox"/> 20 <input type="checkbox"/> 30 months from the earliest claimed priority date (37 CFR 1.492(f)).				+	
TOTAL NATIONAL FEE =				\$252.00	
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property.				+	0.00
TOTAL FEES ENCLOSED =				\$252.00	
				Amount to be refunded	\$
				charged	\$

a. ☒ A check in the amount of \$ 252.00 to cover the above fees is enclosed.b. ☐ Please charge my Deposit Account No. _____ in the amount of \$ _____ to cover the above fees.c. ☒ The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 02-4300.

NOTE: Where an appropriate time limit under 37 CFR 1.494 or 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the application to pending status.

SEND ALL CORRESPONDENCE TO:

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Date: September 18, 2000

PCT/US 99/05733
IPEAUS 0 DEC 1999

**TOWEL-MAT WITH A FRAME MEMBER AND REMOVABLY
ATTACHED MEMBRANES**

CROSS-REFERENCE TO RELATED PATENT APPLICATIONS

5 This patent application claims the benefit of U.S. Application Serial No. 09/081,134, entitled A Self-Opening Towel, filed on May 19, 1998 and is incorporated herein by reference.

This patent application is related to and claims the benefit of commonly assigned U.S. Patent Application Serial No. 09/229,966, entitled Collapsible Frame,
10 filed May 19, 1998, which is incorporated herein by reference.

BACKGROUND OF THE INVENTION

The present invention generally relates to a towel-mat having a frame member and removably attached membranes.

15 Conventional beach towels and picnic blankets are typically used, for example, to separate a person from the ground (e.g., beach sand) and/or to line a chair. Difficulty exists, however, in maintaining the shape of these items when being used for such purposes. For example, when a beach towel is used to separate a person from the beach sand, the towel will typically lose its spread out shape and
20 converge towards the person.

Several attempts have been tried to remedy these problems with towels. For example, U.S. Patent 3,862,876, issued to Graves, discloses one attempt to maintain the desired shape of a towel. The towel in Graves has continuous flexible weights

secured along two opposed edges of the towel. U.S. Patent 4,709,430, issued to Nicoll, discloses a beach blanket having a non-metallic tube filled with a liquid weight such as water located at the perimeter of the blanket.

These known towels, however, can be difficult to arrange when configured to
5 have a large size. These towels can be cumbersome to arrange for separating a person from the beach sand, to line a chair, and to pack for removal.

SUMMARY OF THE INVENTION

A towel-mat includes a frame member being formed from a flexible twistable
10 material, a first membrane and a second membrane. The first membrane has a perimeter portion to which a frame member is fixedly attached. The second membrane has a perimeter portion. The second membrane is removably attachable to the first membrane.

In one embodiment, the second membrane is removably attachable to the first
15 membrane along the perimeter portion of the second membrane and along the perimeter portion of the first membrane.

In another embodiment, the perimeter portion of the second membrane includes an extended portion. The extended portion and the perimeter portion of the second membrane forms a perimeter pocket adapted to receive the first membrane.

In yet another embodiment, the towel-mat further comprises a fastener having
20 a first portion and a second portion. The first portion of the fastener is attached to the first membrane, and the second portion of the fastener is attached to the second membrane. The fastener is adapted to removably attach the first membrane to the second membrane.

25

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 shows a top view of a top membrane of a towel-mat according to an embodiment of the present invention.

FIG. 2 shows a side view of the top membrane shown in FIG. 1.

30 FIG. 3 shows a bottom view of the top membrane shown in FIGS. 1 and 2.

FIG. 4 shows a bottom or top view of the bottom membrane for attachment to the top membrane shown in FIGS. 1 through 3.

FIG. 5 shows a cross-sectional view of the top membrane shown in FIG. 1 along the line shown in Fig. 2 and the bottom membrane inserted into the perimeter
5 pocket of the top membrane.

FIG. 6 illustrates one manner in which the membranes of the towel-mat shown in FIGS. 1-5 can be constructed, according to an embodiment of the present invention.

FIG. 7 illustrates an alternative manner in which the membranes of a towel-
10 mat can be constructed according to another embodiment of the present invention.

FIG. 8 illustrates yet another manner in which the membranes of the towel-mat can be constructed according to another embodiment of the present invention.

FIG. 9 illustrates a top view of a towel-mat with a frame member and removably attached membranes according to another embodiment of the present
15 invention.

FIG. 10 illustrates a top view of a towel-mat with a frame member and removably attached membranes according to another embodiment of the present invention.

FIG. 11 shows a side view of the towel-mat shown in FIG. 10.

FIG. 12 illustrates a bottom or top view of the lower membrane of the towel-mat shown in FIGS. 10 and 11.
20

FIG. 13 illustrates a top view of a towel-mat according to another embodiment of the present invention.

FIG. 14 illustrates a side view of the towel-mat shown in FIG. 13.

FIG. 15 shows a top view of a towel-mat according to another embodiment of the present invention.
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FIG. 16 shows a side view of the towel-mat shown in FIG. 15.

FIG. 17 shows a top view of a towel-mat according to another embodiment of the present invention.

FIG. 18 shows a side view of the towel-mat shown in FIG. 17.
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FIG. 19 illustrates a top view of a towel-mat with a frame member and removably attached membranes.

FIG. 20 is a side view of the towel-mat shown in FIG. 19.

FIG. 21 shows a bottom view of the towel-mat shown in FIGS. 19 and 20.

5 FIG. 22 illustrates a top view of the towel-mat shown in FIGS. 19 through 21 where the top membrane is separated from the lower membrane.

FIG. 23 shows a top view of a pillow according to an embodiment of the present invention.

10 FIG. 24 shows a top view of a pillow according to another embodiment of the present invention.

DETAILED DESCRIPTION

A towel-mat includes a frame member being formed from a flexible twistable material, a first membrane and a second membrane. The first membrane has a
15 perimeter portion to which a frame member is fixedly attached. The second membrane has a perimeter portion. The second membrane is removably attachable to the first membrane.

The term “membrane” is used herein to include, but is not limited to, a layer of material. For example, the membrane can be a piece of fabric such as terry cloth
20 or nylon. In one embodiment, for example, one membrane (e.g., the second membrane which can form a top membrane of the towel-mat) can be a machine-washable fabric such as terry cloth to face the user comfortably; the other membrane (e.g., the first membrane with the frame member fixedly attached which can form a bottom membrane of the towel-mat) can be a fabric, not necessarily machine
25 washable, such as nylon to face the ground.

The term “perimeter portion” is used herein to include an area substantially about the perimeter of a membrane. The perimeter portion can be, for example, twenty percent of the membrane area nearest to the membrane perimeter.

In one embodiment, the perimeter portion of the second membrane includes
30 an extended portion and a facing portion. The extended portion and the facing portion of the second membrane forms a perimeter pocket adapted to receive the first

membrane. The term "extended portion" is used herein to include, but is not limited to, a portion of a membrane extending beyond the membrane perimeter. For example, the extended portion can include a portion of the membrane that is folded over at the perimeter. The extended portion can be made of the same material as the
5 membrane itself or can be made of a material different from the membrane, for example, an elastic material sown to a nylon membrane. The term "facing portion" is used herein to include a portion of a membrane that faces the extended portion of the membrane.

The "perimeter pocket" formed by the extended portion and the facing
10 portion of the membrane can be any type of cavity or opening along at least a portion of the perimeter. In one embodiment, the frame member is fixedly attached along the perimeter of one towel-mat membrane (e.g., the lower membrane) which is, in turn, inserted into the perimeter pocket of another membrane (e.g, the top membrane); the extended portion can be an elastic material which is stretched over the lower
15 membrane so that it is disposed within the perimeter pocket formed by the extended portion and the facing portion of the lower membrane.

FIG. 1 shows a top view of a top membrane of a towel-mat according to an embodiment of the present invention. FIG. 2 shows a side view of the top membrane shown in FIG. 1. FIG. 3 illustrates a bottom view of the top membrane for the
20 towel-mat shown in FIGS. 1 and 2.

A towel-mat includes a top membrane 110 and a bottom membrane 120. A body portion 111 and a head portion 112 can be fixedly attached to top membrane 110. Body portion 111 and head portion 112 can be fixedly attached to the top membrane 110 by, for example, sewing along the perimeters of those portions. Head
25 portion 112 can be sewn along a portion of the perimeter of the head portion 112 to provide an opening 113 where a pillow can be inserted as will be discussed below.

Top membrane 110 includes an extended portion 114, which is located on the underside of the top membrane 110 from the top view perspective. Extended portion 114 and the facing portion of top membrane 110 form a pocket into which the
30 bottom membrane 120 can be removably inserted. The extended portion 114 can be made, for example, an elastic material that can be stretched over lower membrane

120 to better place lower membrane 120 within the pocket. In other words, the bottom membrane 120 can be removably attached to the top membrane 110 by placing lower membrane 120 within the pocket formed by extended portion 114 and top membrane 110.

5 FIG. 4 shows a bottom or top view of the bottom membrane for attachment to the top membrane shown in FIGS. 1 through 3. The lower membrane 120 has the frame member (not shown) fixedly attached. The lower membrane 120 can be folded over the frame member and then sewn along the interior of the lower membrane 120. In other words, lower membrane 120 can have an oval shape; the frame member can
10 be placed along the perimeter and then the lower membrane 120 can be sewn along the inner perimeter to capture the frame member within the doubled-over lower membrane. Because the frame member is captured within the lower membrane 120, the frame member is essentially fixedly attached to the lower membrane 120.

 FIG. 5 shows a cross-sectional view of the top membrane shown in FIG. 1
15 along the line / and the lower membrane inserted into the perimeter pocket of the top membrane. As shown in FIG. 5, the lower membrane 120 is placed within the pocket formed by top membrane 110 and extended portion 114. FIG. 5 illustrates the frame member 130 located along the perimeter of lower membrane 120.

 FIG. 6 shows an exploded view of the end portion of the cross-section shown
20 in FIG. 5. FIG. 6 illustrates one manner in which the membranes of the towel-mat shown in FIGS. 1-5 can be constructed, according to an embodiment of the present invention. As shown in FIG. 6, lower membrane 120 can be folded over frame member 130 and sewn along that inner perimeter of lower membrane 120, which is solid along its interior. In an alternative embodiment, the lower membrane 120 has a
25 hole within its interior and the frame member is sewn along a perimeter portion.

 As FIG. 6 illustrates, top membrane 110 can be sewn to extended portion 114 so that the seam is on the interior of the towel. The far end of extended portion 114 can be sewn with a binding.

 FIG. 7 illustrates an alternative manner in which the membranes of a towel-
30 mat can be constructed according to another embodiment of the present invention. As FIG. 7 illustrates, the top membrane 810 and extended portion 814 can be sewn

with an exterior seam 815 and then have a binding placed over the seam. The far end of the extended portion, again, can have a binding 816.

FIG. 8 illustrates yet another manner in which the membranes of the towel-mat can be constructed according to another embodiment of the present invention.

- 5 As shown in FIG. 8, the top membrane can be constructed similar to that shown in FIG. 7 with an additional segment 918 attached to the extended portion 914.

FIG. 9 illustrates a top view of a towel-mat with a frame member and removably attached membranes according to another embodiment of the present invention. Towel-mat 200 includes top membrane 210, lower membrane 220 and
10 fastener 230. Top membrane can include a body portion 211 and a head portion 212. The frame member (not shown) is sewn along the perimeter of lower membrane 220.

Fastener 230 has one portion attached to the top membrane 210 and another portion attached to the lower membrane 220. The portions of the fastener 230 can be, for example, attached along the perimeter portions of the top and lower
15 membranes 210 and 220, respectively. The fastener can be, for example, a zipper, a hook and pile arrangement, a set of buttons with holes or a set of snaps. The particular fastener shown in FIG. 9 is a zipper.

The head portion 212 can be fixedly attached to body portion 211 by sewing the head portion 212 to the body portion 211 along the semi-circular outer perimeter
20 214 of the head portion 212. A opening can be formed along the straight side 215 of head portion 212 to allow a pillow to be removably inserted into the towel. Once head portion 212 has been attached to body portion 211, both portions can be fixedly attached to top membrane 220, for example, by sewing along the perimeter of body portion 211.

- 25 FIG. 10 illustrates a top view of a towel-mat with a frame member and removably attached membranes according to another embodiment of the present invention. FIG. 11 shows a side view of the towel-mat shown in FIG. 10. Towel-mat 300 includes top membrane 310, lower membrane 320 and fastener 330. Top membrane can include a body portion 311 and a head portion 312. FIG. 12
30 illustrates a bottom or top view of the towel-mat shown in FIGS. 10 and 11. The frame member (not shown) is sewn along the perimeter of lower membrane 320.

Fastener 330 has one portion that is to be attached to the top membrane 310 and another portion that is to be attached to the lower membrane 320. The portions of the fastener 330 can be, for example, attached along the perimeter portions of the top and lower membranes 310 and 320, respectively. The fastener can be, for example, a zipper, a hook and pile arrangement, a set of buttons with holes or a set of snaps. The particular fastener shown in FIGS. 10 and 11 is a zipper.

The head portion 312 can be fixedly attached to top membrane 310 by sewing the head portion 312 to the top membrane 310 along the semi-circular outer perimeter of the head portion 312. A opening can be formed along the straight side of head portion 312 to allow a pillow to be removably inserted into the towel.

FIG. 13 illustrates a top view of a towel-mat according to another embodiment of the present invention. FIG. 14 illustrates a side view of the towel-mat shown in FIG. 13. Although many of the details of the towel-mat 400 are omitted from FIGS. 13 and 14 for clarity, the shown details are those that relate to the head portion of the top membrane. The head portion 412 can be sewn along three of the four sides of its perimeter and can be sewn along interior lines to form an opening 413 to a central pocket 414 (into which a pillow can be placed), left pocket 415 and right pocket 416 (into which miscellaneous items, such as sunglasses, keys and suntan lotion can be placed).

FIG. 15 shows a top view of a towel-mat according to another embodiment of the present invention. FIG. 16 shows a side view of the towel-mat shown in FIG. 15. Similar to the discussion above, the details again shown here relate to head portion 512, which has been sewn along three of its four sides to form a pocket 513.

FIG. 17 shows a top view of a towel-mat according to another embodiment of the present invention. FIG. 18 shows a side view of the towel-mat shown in FIG. 17. Again, the details shown relate to the head portion 612, which is shown along three of its four sides to form an opening 613.

FIG. 19 illustrates a top view of a towel-mat with a frame member and removably attached membranes. FIG. 20 is a side view of the towel-mat shown in FIG. 19. FIG. 21 shows a bottom view of the towel-mat shown in FIGS. 19 and 20. Towel-mat 700 includes top membrane 710, lower membrane 720, fastener 730 and

pull ring 740. Top membrane 710 includes body portion 711 and head portion 712, which are fixedly attached to top membrane 710. Fastener 730 has one portion attached to top membrane 710 and another portion attached to lower membrane 720. The fastener can be located, for example, around the perimeter portions of top

5 membrane 710 and lower membrane 720. The fastener shown in FIGS. 19 through 21 is a zipper.

FIG. 22 illustrates a top view of the towel 700 shown in FIGS. 19 through 21 where the top membrane 710 is removed from the lower membrane 720. Note that the view of bottom membrane 720 is from a top view.

10 A cord 750 has cord sections 751 and 752, and is located within the lower membrane 720. Cord section 751 is fixedly attached directly to the frame member (not shown) or fixedly attached to the lower membrane 720 itself. The other end of cord section 751 is movably engagable through the lower membrane and connected to pull ring 740. Similarly, cord section 752 is also fixedly attached to either the

15 frame member or the lower membrane 720 at a location angularly separated from the fixedly attached location of cord section 751. The remaining end of cord section 752 is movably engagable through lower membrane 720 and again connected to pull ring 740.

An elastic member 760 attaches to cord section 752, and to cord section 751 or a location on the lower membrane 720. As shown in FIG. 22, the elastic member 760 can have one end attached to cord section 751 where it fixedly attaches to the frame member or lower membrane 720 and the remaining end of elastic member 760 can be connected at point between the end points of cord section 752, for example, at a halfway point on cord section 752. Alternatively, the elastic member 760 can have

25 its one end (the end opposite from the attachment at cord section 752) attached to the band (not shown) or to the lower membrane 720 itself. This end of elastic member 760 can be attached at any point along the band or the lower membrane 720 so that slack in the length of elastic member is taken up.

Note that the configuration of the cord with its cord sections (and the

30 optional elastic member) shown in FIG. 22 is just one of many possible configurations. These other possible configurations are described in pending U.S.

FOI/08 99/05/23
 IPEAUS 03 DEC 1999

Patent Application Serial No. 09/229,966, entitled Collapsible Frame ~~(Attorney Docket)~~
~~10246/100019~~, filed on the same day and which is incorporated herein by reference.

A user can convert the towel-mat from an extended configuration to a collapsed configuration by pulling pull ring 740. The extended configuration of the towel-mat is shown in FIG. 22. The towel-mat can also be converted to a collapsed configuration and a chair configuration which are described in pending U.S.

Application Serial No. 09/081,134, entitled A Self-Opening Towel, filed on May 19, 1998 and is incorporated herein by reference (see, e.g., FIGS. 3-8, 10-14 and their corresponding written description).

FIG. 23 shows a top view of a pillow according to an embodiment of the present invention. FIG. 24 shows a top view of a pillow according to another embodiment of the present invention. As FIGS. 23 and 24 illustrate, the pillow can have varying types of shapes that allow them to be removably insertable into a pillow pocket for any of the towel-mat configurations discussed above. The pillow can be inflatable and deflatable for ease of storage and use.

It should, of course, be understood that while the present invention has been described in reference to particular component shapes and configurations, other component shapes and configurations should be apparent to those of ordinary skill in the art. For example, although the band is shown and discussed as having a circular in shape, the band can have a more rectangular shape with rounded corners. Although the cord sections are shown and discussed with having a common point of intersection, the cord sections can be interconnected at different points.

What is claimed:

- 3 1. An apparatus, comprising:
4 a frame member being formed from a flexible twistable material;
5 a first membrane having a perimeter portion, said frame member being fixedly
6 attached at the perimeter portion of said first membrane; and
7 a second membrane having a perimeter portion, said second membrane being
8 removably attachable to said first membrane.
- 10 2. The apparatus of claim 1, wherein said second membrane is removably
11 attachable to said first membrane along the perimeter portion of said second
12 membrane and along the perimeter portion of said first membrane.
- 14 3. The apparatus of claim 1, wherein the perimeter portion of said second
15 membrane includes an extended portion and a facing portion, the extended portion
16 and the facing portion of said second membrane forming a perimeter pocket adapted
17 to receive said first membrane.
- 19 4. The apparatus of claim 1, further comprising:
20 a fastener having a first portion and a second portion, the first portion of said
21 fastener being attached to the first membrane, the second portion of said fastener
22 being attached to the second membrane, said fastener being adapted to removably
23 attach said first membrane to said second membrane.
- 25 5. The apparatus of claim 4, wherein:
26 the first portion of said fastener is attached along at least a portion of the
27 perimeter portion of said first membrane;
28 the second portion of said fastener is attached along at least a portion of the
29 perimeter portion of said second membrane.
30

- 1 6. The apparatus of claim 4, wherein:
2 the first portion of said fastener is attached substantially all along the
3 perimeter portion of said first membrane;
4 the second portion of said fastener is attached substantially all along the
5 perimeter portion of said second membrane.
- 7 7. The apparatus of claim 1, wherein said frame member has:
8 (1) a first shape being substantially planar when said frame member is in
9 an extended configuration, and
10 (2) a second shape being substantially planar and having an area less than
11 an area of the first shape when said frame member is in a collapsed
12 configuration.
- 14 8. The apparatus of claim 1, wherein said frame member has:
15 (1) a first shape being substantially planar when said frame member is in
16 an extended configuration, and
17 (2) a second shape when said frame member is in a chair configuration,
18 the chair configuration having a back portion and a seat portion.
- 20 9. The apparatus of claim 1, further comprising:
21 a body membrane fixedly attached to said second membrane; and
22 a head membrane fixedly attached to said second membrane.
- 24 10. The apparatus of claim 1, further comprising:
25 a body membrane fixedly attached to said second membrane;
26 a head membrane fixedly attached to said second membrane, said head
27 membrane and said second membrane forming a head pocket; and
28 a pillow, said pillow removably being insertable into the head pocket.
- 30 11. The apparatus of claim 8, further comprising:
31 a body membrane fixedly attached to said second membrane;

32 a head membrane fixedly attached to said second membrane, said head
33 membrane and said second membrane forming a head pocket; and
34 a pillow, said pillow removably being insertable into the head pocket,
35 said pillow being disposed within the back portion of the chair configuration
36 when said frame member is in the chair configuration.

38 12. The apparatus of claim 1, wherein:
39 said first membrane with the fixedly attached frame member is not machine
40 washable, and
41 said second membrane is machine washable.

43 13. The apparatus of claim 1, wherein:
44 the frame member includes a cord having at least a first cord section, the at
45 least first cord section having a first end coupled to the frame member and a second
46 end;
47 said first membrane having at least one hole corresponding to the at least first
48 cord section, the second end of the at least first cord section being slidably engagable
49 through the corresponding hole.

51 14. A method for manufacturing a towel-mat with a frame membrane,
52 comprising:
53 fixedly attaching the frame member to a perimeter portion of a first
54 membrane; and
55 forming a perimeter pocket from a facing portion and an extended portion of
56 a second membrane, the perimeter pocket adapted to receive the first membrane.

58 15. The method of claim 14, further comprising:
59 fixedly attaching a body membrane to the second membrane; and
60 fixedly attaching a head membrane to the second membrane.

1 16. The method of claim 14, further comprising:
2 fixedly attaching a body membrane to the second membrane;
3 fixedly attaching a head membrane to the second membrane; and
4 forming a head pocket between the head membrane and the second membrane
5 forming a head pocket.

7 17. The method of claim 14, further comprising:
8 converting the frame member from an extended configuration to a chair
9 configuration, the chair configuration having a back portion and a seat portion, said
10 pillow being disposed within the back portion of the chair configuration when said
11 frame member is in the chair configuration.

13 18. The method of claim 14, further comprising:
14 forming at least a first hole within the first membrane, the frame member
15 including a cord having at least a first cord section, the at least first cord section
16 having a first end coupled to the frame member and a second end; and
17 passing the second end of the at least first cord section through the hole of the
18 first membrane.

20 19. A method for manufacturing a towel-mat with a frame membrane,
21 comprising:
22 fixedly attaching the frame member to a perimeter portion of a first
23 membrane;
24 fixedly attaching a first portion of a fastener to the first membrane; and
25 fixedly attaching a second portion of the fastener to a second membrane, the
26 fastener being adapted to removably attach the first membrane to the second
27 membrane.

29 20. The method of claim 19, wherein:
30 the first portion of the fastener being fixedly attached along the perimeter
31 portion of the first membrane; and

32 the second portion of the fastener being fixedly attached along a perimeter
33 portion of the second membrane.

35 21. The method of claim 19, wherein:

36 the first portion of the fastener being fixedly attached substantially all along
37 the perimeter portion of the first membrane; and

38 the second portion of the fastener being fixedly attached substantially all along
39 a perimeter portion of the second membrane.

40

41 22. The method of claim 19, further comprising:

42 fixedly attaching a body membrane to the second membrane; and

43 fixedly attaching a head membrane to the second membrane.

45 23. The method of claim 19, further comprising:

46 fixedly attaching a body membrane to the second membrane;

47 fixedly attaching a head membrane to the second membrane; and

48 forming a head pocket between the head membrane and the second membrane
49 forming a head pocket.

50

51 24. The method of claim 19, further comprising:

52 converting the frame member from an extended configuration to a chair

53 configuration, the chair configuration having a back portion and a seat portion, said

54 pillow being disposed within the back portion of the chair configuration when said

55 frame member is in the chair configuration.

57 25. The method of claim 19, further comprising:

58 forming at least a first hole within the first membrane, the frame member

59 including a cord having at least a first cord section, the at least first cord section

60 having a first end coupled to the frame member and a second end; and

61 passing the second end of the at least first cord section through the hole of the
62 first membrane.

65

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1/10

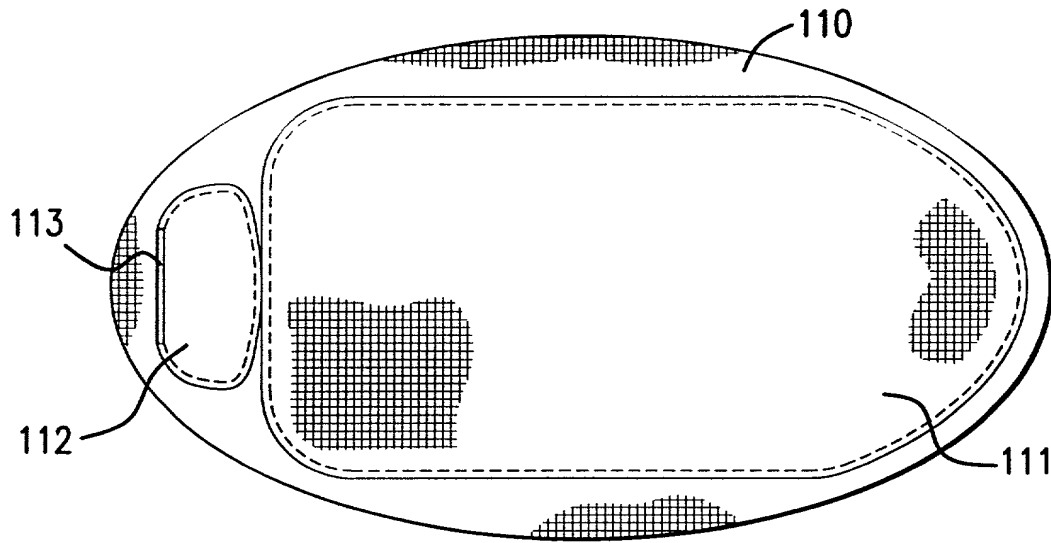


FIG. 1

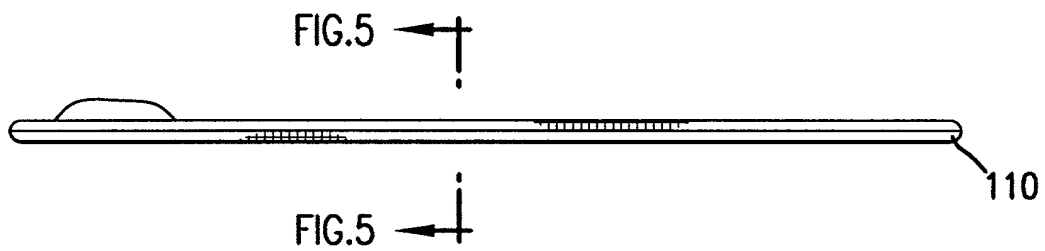


FIG. 2

2/10

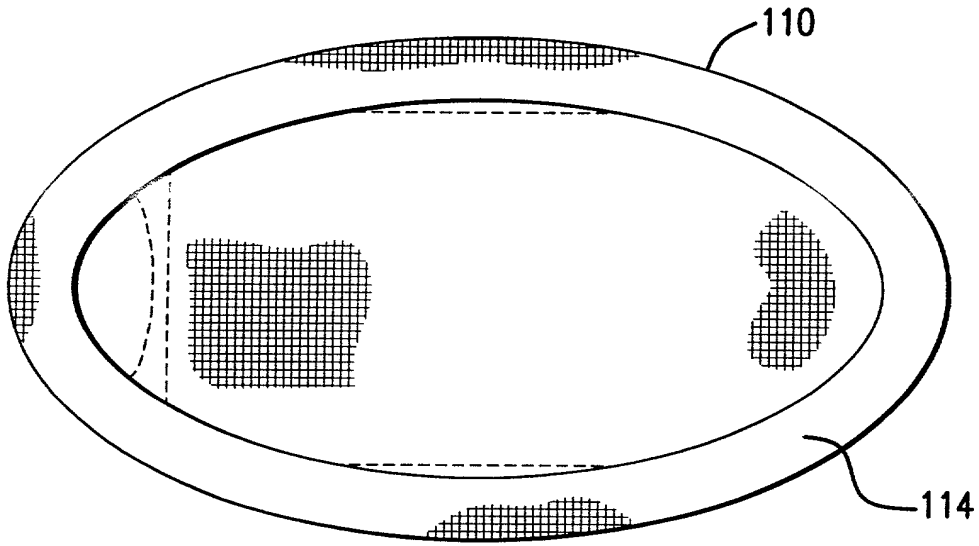


FIG. 3

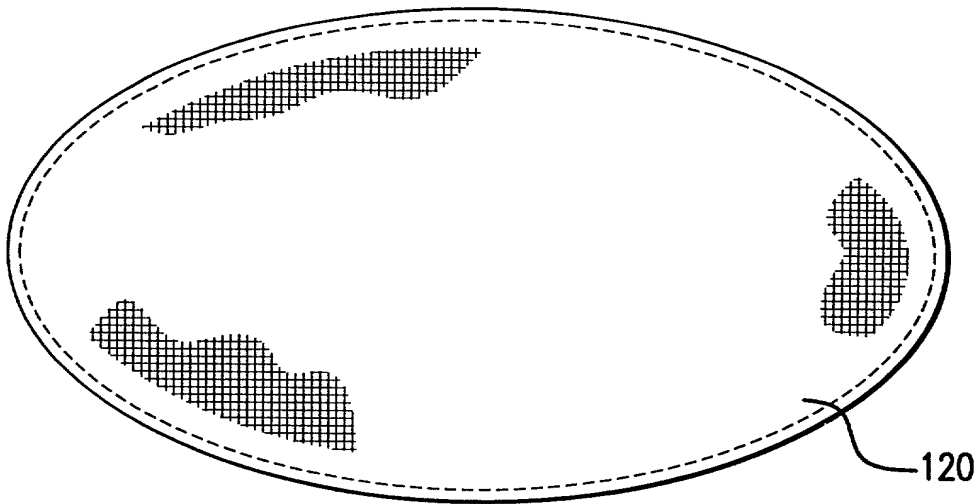
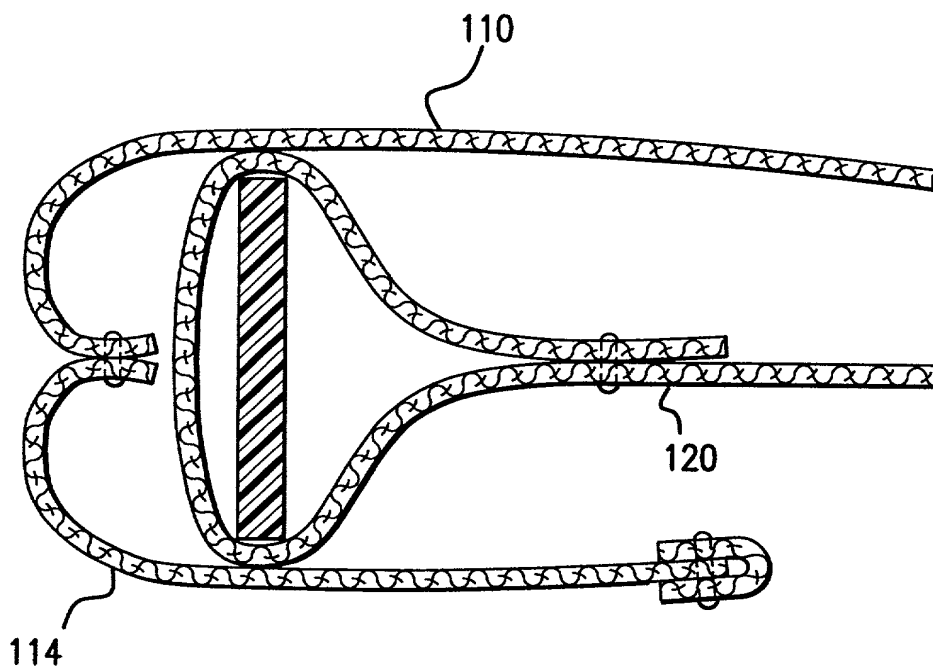
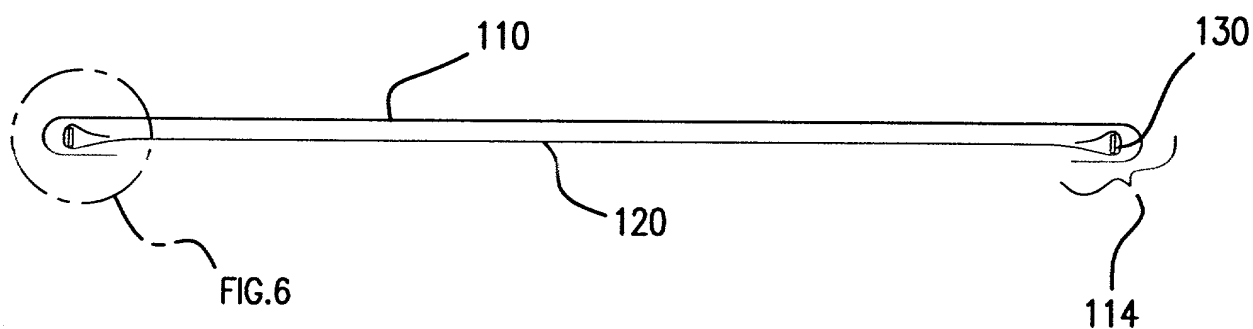


FIG. 4

3/10



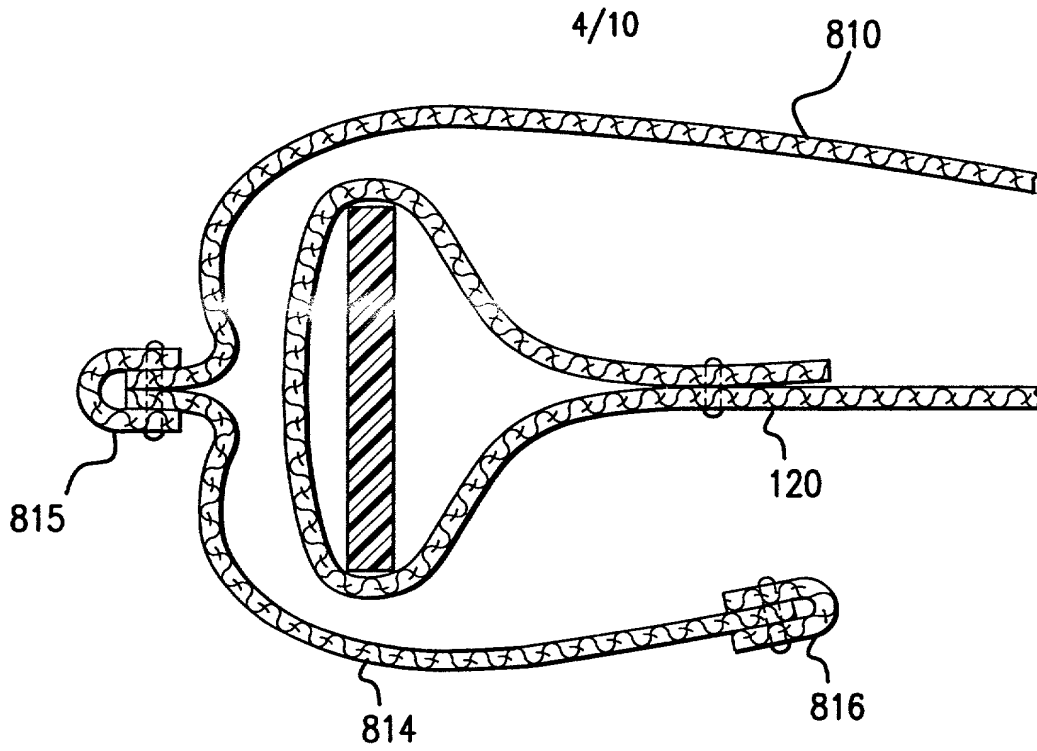


FIG. 7

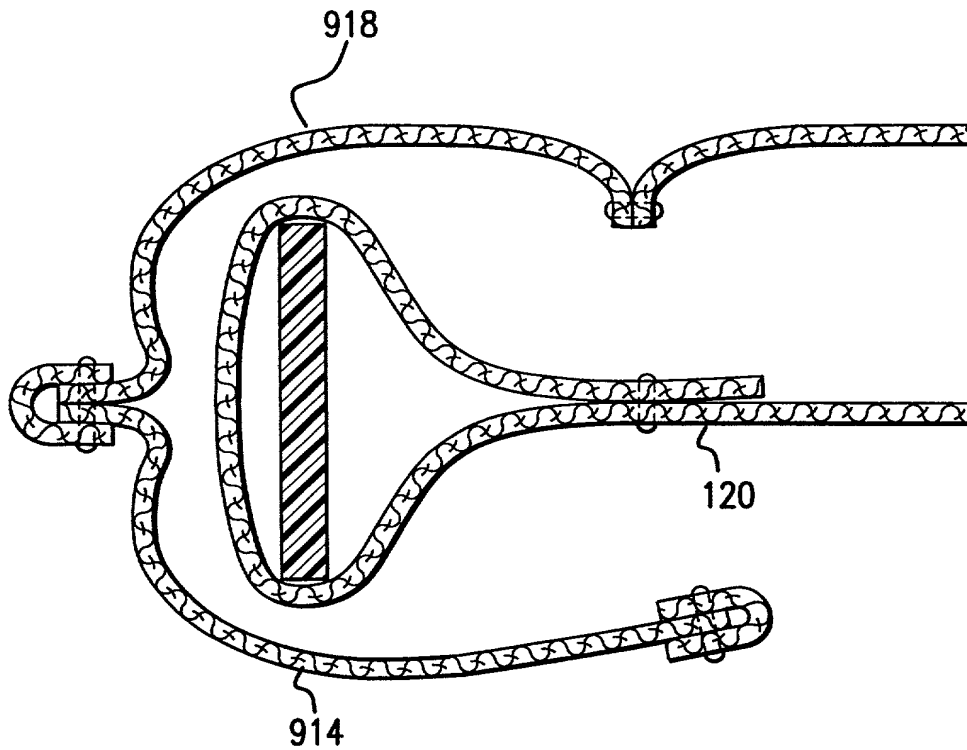


FIG. 8

5/10

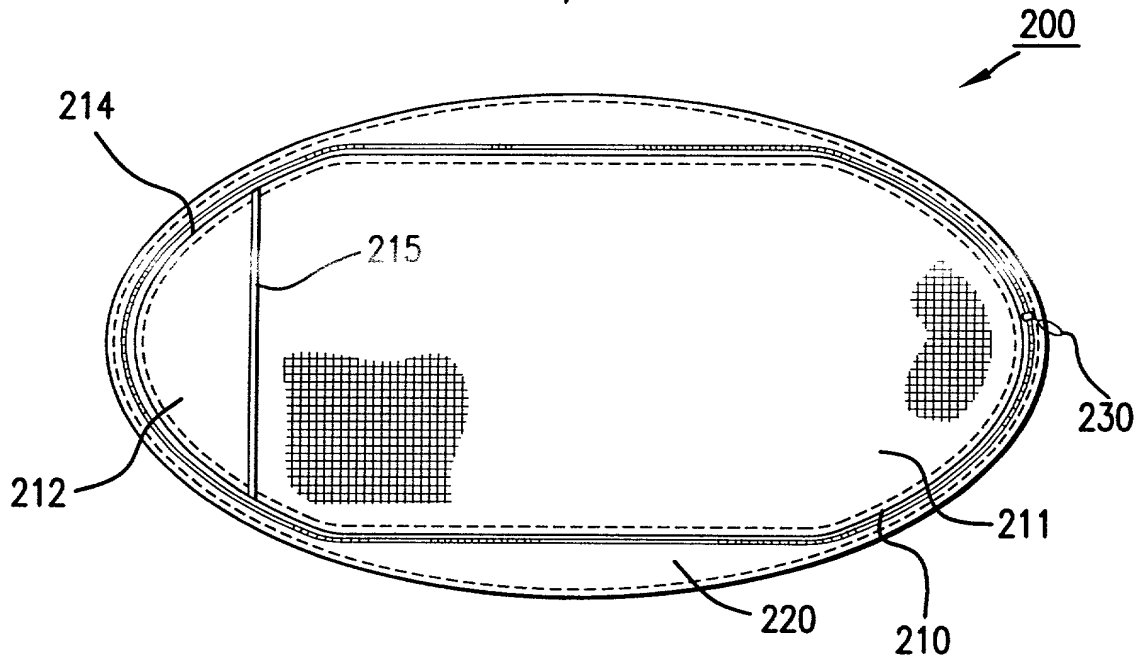


FIG. 9

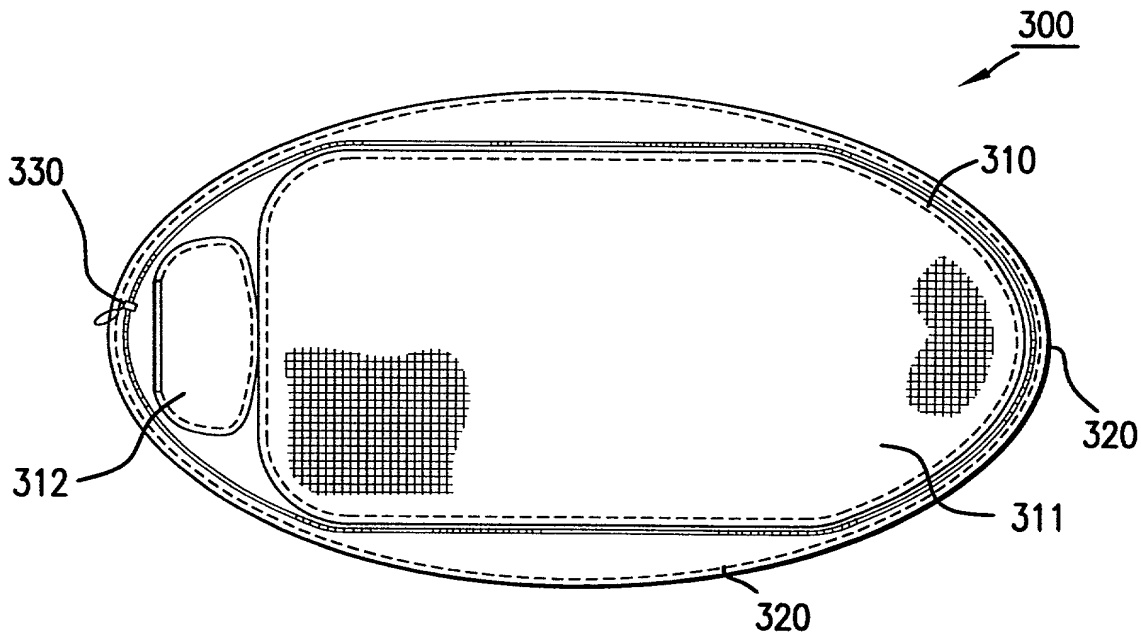


FIG. 10

6/10

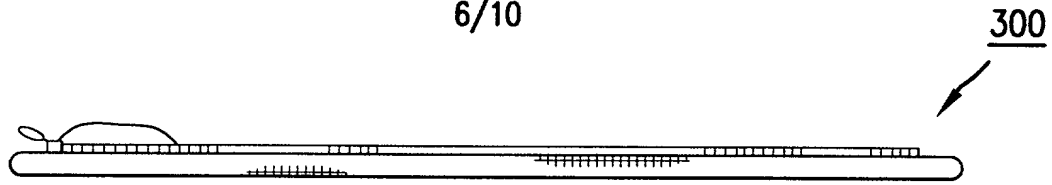


FIG. 11

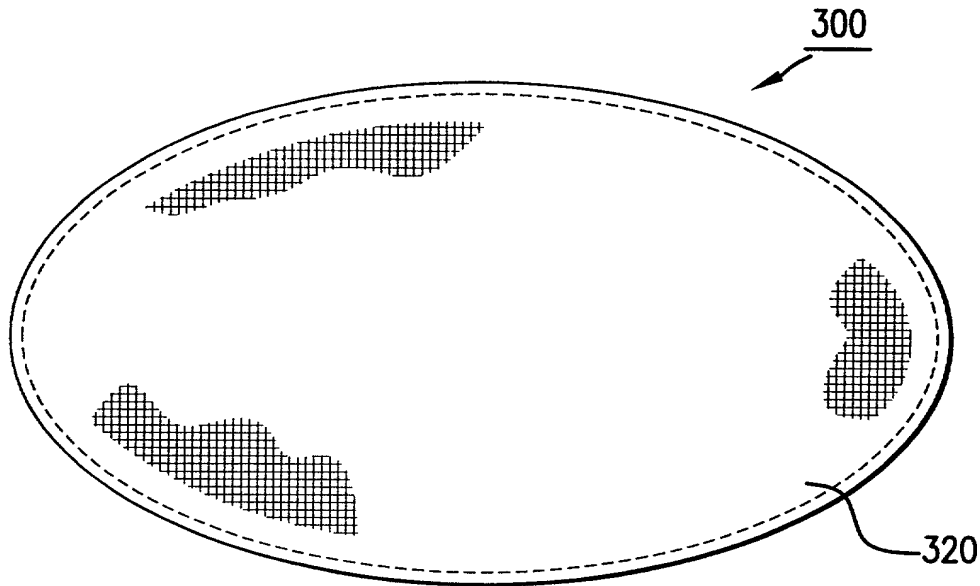


FIG. 12

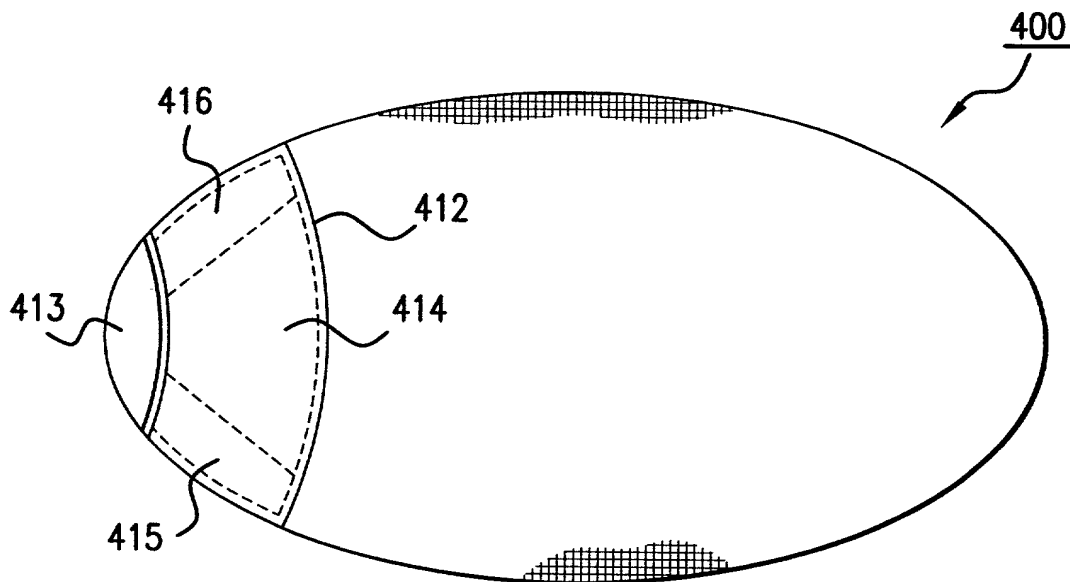


FIG. 13

7/10

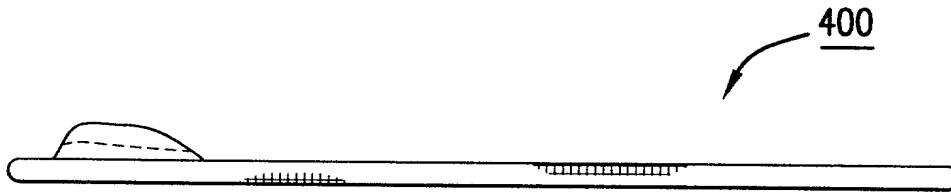


FIG. 14

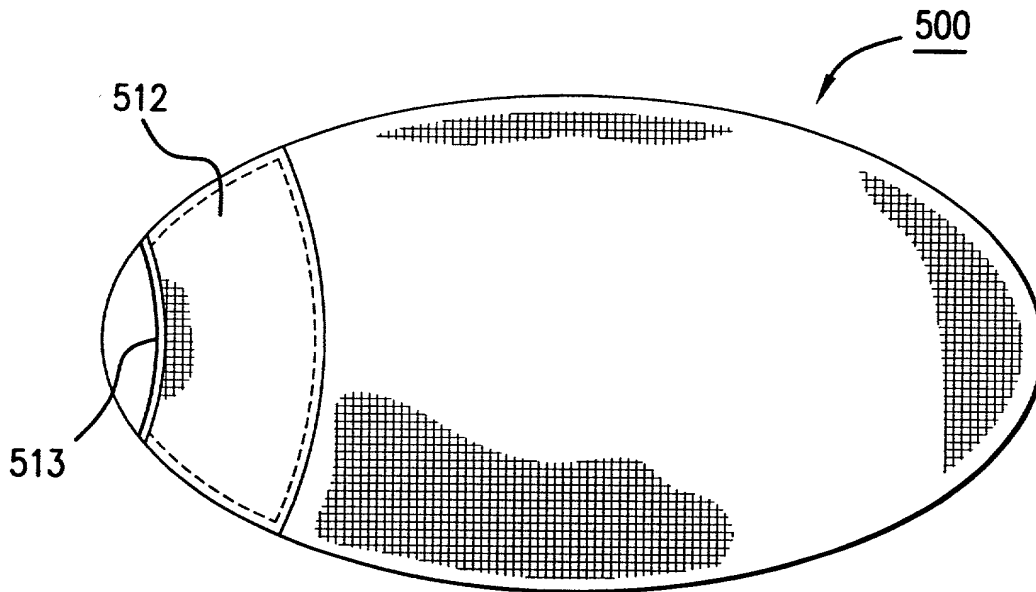


FIG. 15



FIG. 16

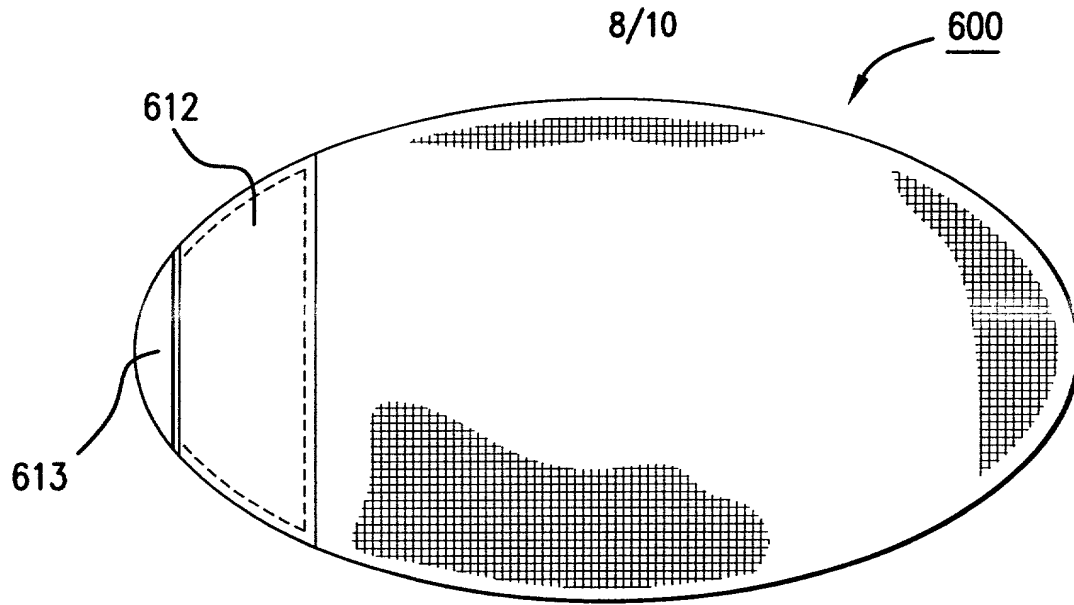


FIG. 17

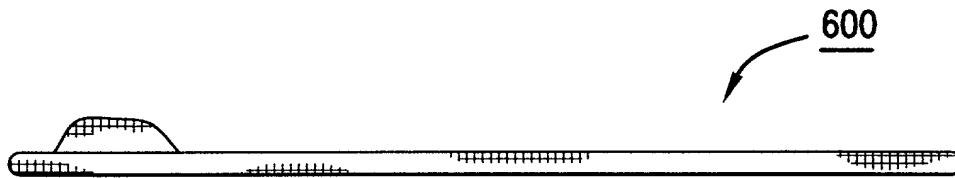


FIG. 18

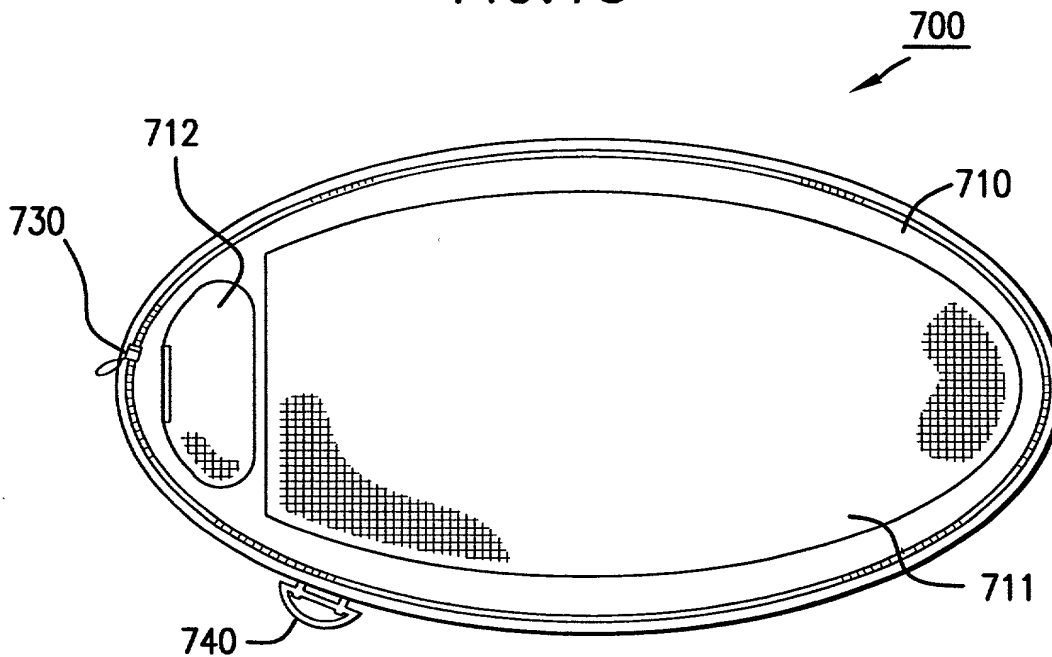


FIG. 19

9/10

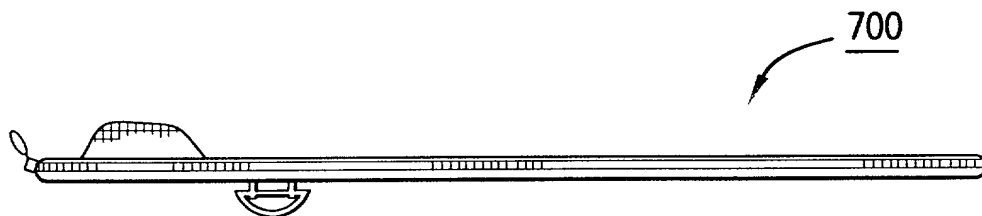


FIG. 20

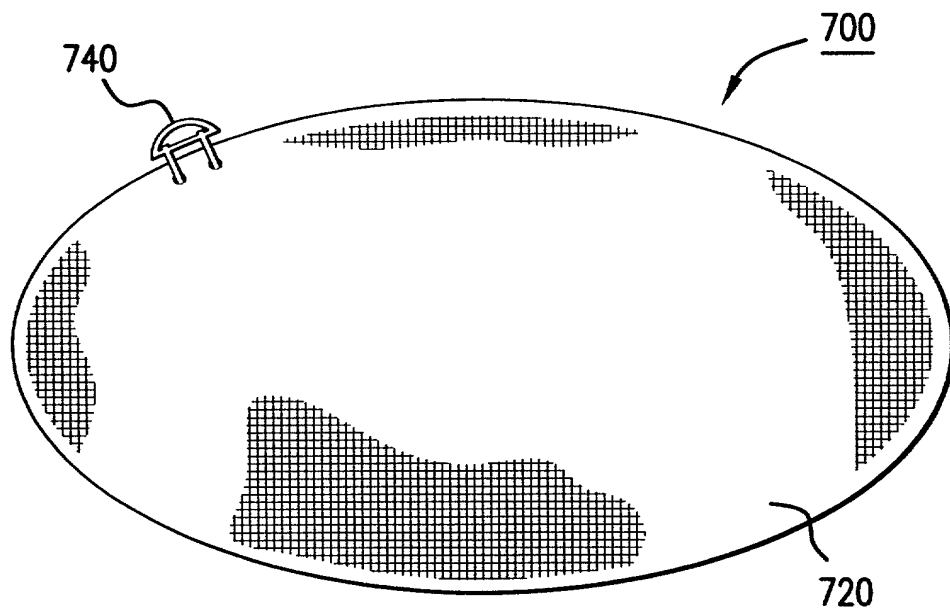


FIG. 21

10/10

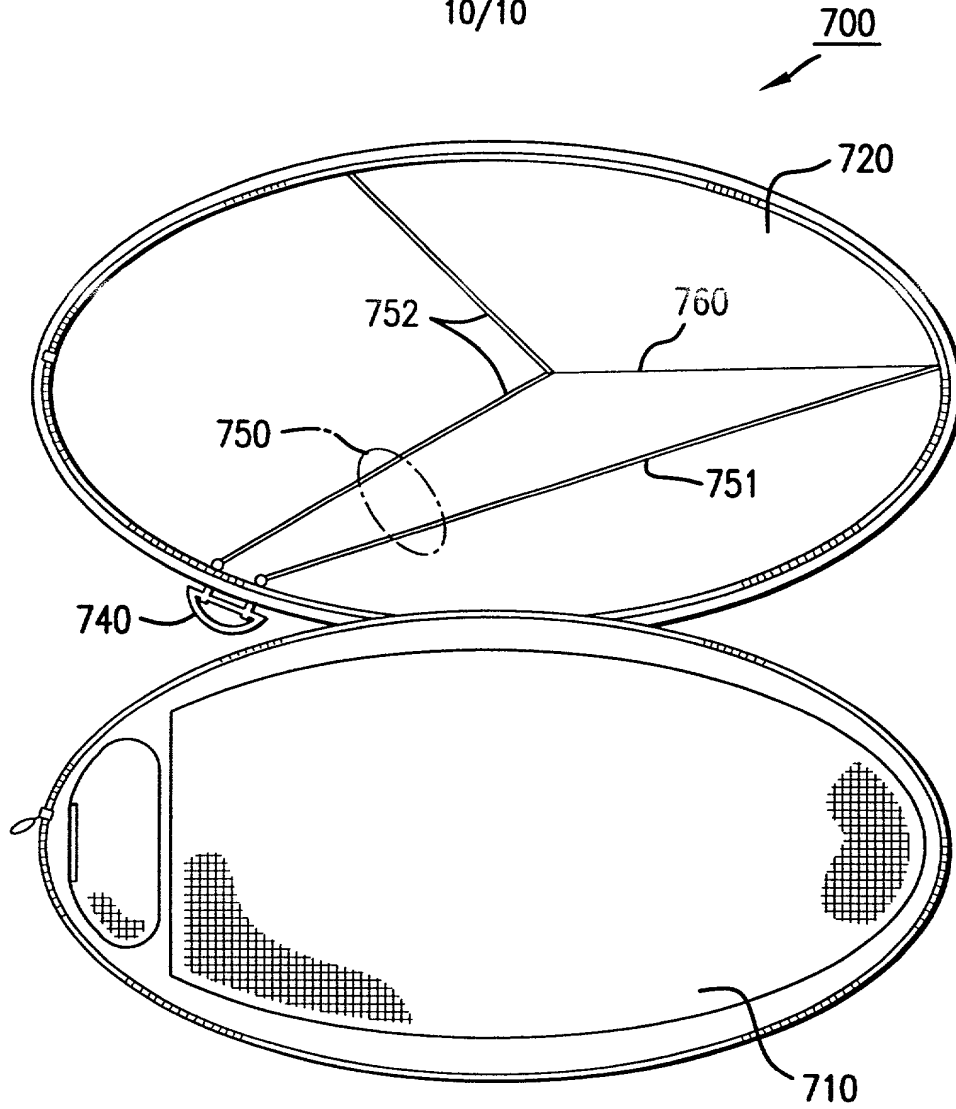


FIG. 22

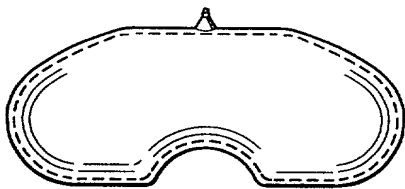


FIG. 23

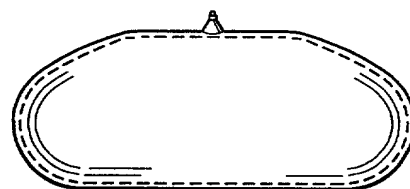


FIG. 24

Declaration and Power of Attorney United States Patent Application

UNITED STATES
Patents and Design Patents
Sole & Joint Inventors
Convention & Non-convention
PCT & Non-PCT
This form cannot be amended, altered
or changed after it is signed.
(For use only for inventors who
understand the English language.)

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on

the invention entitled **Process For Reducing Protein Allergens In Latex Products**

(check one)

☐ is attached hereto.

☒ was filed as U.S. Application No. 09/646,415 on September 18, 2000 and (if applicable) was amended on _____

☒ was filed as PCT International Application No. PCT/US99/05733 on March 17, 1999 and (if applicable) was amended under PCT Article 34 on _____

I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above. I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign and PCT application(s) for patent or inventor's certificate, or §363(a) of any PCT international application which designated at least one country other than the United States of America listed in this Declaration. I have also identified below any foreign application for patent or inventor's certificate or PCT international application having a filing date before that of the application(s) on which priority is claimed:

Foreign/PCT Application No.	Country	Filing Date	Priority Claimed? (yes/no)

I hereby claim the benefit under Title 35, United States Code, §120 or §365(c) of any United States application and PCT international application designating the United States of America listed in this Declaration and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application or PCT international application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Application No.	Filing Date	Status (patented/pending/abandoned?)

I hereby claim priority benefits under Title 35 United States Code §119(e) of any U.S. provisional application(s) listed below:

U.S. Provisional Application No.	Filing Date
<u>60/078,388</u>	<u>March 18, 1998</u>

I hereby appoint the following attorneys to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith: Robert C. Weilacher (20,531), Herbert M. Hunegan (25,682), Dale Lischer (28,438), Frederick P. Calvetti (28,557), J. Rodgers Lunsford, III (29,405), Michael A. Makuch (32,263), Dennis C. Rodgers (32,936), William F. Rauchholz (34,701), Michael C. Carrier (42,391), Eric J. Hanson (44,738), Patrick R. Delaney (45,338), Joseph M. Lewinski (46,383) and Brandon S. Boss (46,567).

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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Citizenship: USA

Signature: George W. Weinert

Date: February 2, 2001

Full name of second joint inventor, if any:

Residence (city, state, country):

Post office address:

Citizenship:



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PATENT TRADEMARK OFFICE

Signature: _____

Date: _____